

# All Agency Project Request

2013 - 2015 Biennium

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<u>Agency</u>	<u>Institution</u>	<u>Building No.</u>	<u>Building Name</u>
University of Wisconsin	Platteville	285-OH-9924	Utility - Site Steam & Condensate
<u>Project No.</u>	15A1Z	<u>Project Title</u>	UWPLT Pits 2/5/7/18/19 Steam & Cond Repl

## **Project Intent**

This project provides investigation and research, pre-design, and design services to replace underground central steam and condensate utilities serving 17 buildings and 1,071,432 GSF to assure reliability and correct known deficiencies. The steam distribution system will be evaluated to identify deficiencies, develop design solution alternatives, and recommend appropriate corrective measures.

## **Project Description**

Project work includes replacing ~ 1,655 LF of steam and condensate utility lines and five (5) steam pits located along the project area. The steam and condensate utilities to be replaced are contained in either concrete box conduit (~1,133LF), cast iron conduit (~210 LF), or direct buried, insulated piping systems (~312 LF). All replacement utilities will be installed in new concrete box conduit. Site restoration work, including roadway repair at the Pit 18 to Pit 19 street crossing, pedestrian walkway repairs, turf and landscaping repair or replacement, will be completed as needed. Project work is located in three areas as outlined below.

PIT 2 (Northwest of Ullrich Hall): Pit 2 was constructed in 1952 and will be replaced. ~210 LF of 6-inch steam and 2-1/2-inch condensate return piping in cast iron conduit from Pit 1 to Pit 2, constructed in 1952, will be replaced. ~165 LF of 3-inch steam and 2-inch condensate return in concrete box conduit, constructed in 1981, will be replaced from Pit 2 to Center for the Arts. ~195 LF of shallow, direct buried 3-inch steam and 2-inch condensate return, constructed in 2003, will be replaced from Pit 2 to Ullrich Hall and the Art Building. ~220 LF of 6-inch steam and 2-1/2-inch condensate return in concrete box conduit, constructed in 1996 (failing), will be replaced from Pit 2 to Doudna Hall.

PITS 5 TO 7 (Boebel Hall to Karmann Library): Pit 5, constructed in 1966, and Pit 7, constructed in 1976, will be replaced. ~117 LF of 4-inch steam and 2-inch condensate return in direct buried Permaduct from Pit 5 to the Karmann Library, constructed in 1966, will be replaced. ~306 LF of 8-inch steam and 4-inch condensate return in concrete box conduit from Pit 5 to Pit 7, constructed in 1975, will be replaced. ~60 LF of 8-inch steam and 4-inch condensate return in concrete box conduit from Pit 7 to Boebel Hall, constructed in 1976, will be replaced.

PITS 18 TO 19 (South of Wilgus Hall, west along Greenwood Avenue): Pits 18 and 19, constructed in 1963, will be replaced. ~382 LF of 8-inch steam and 4-inch condensate return in concrete box conduit from Pit 18 to Pit 19, constructed in 1963, will be replaced.

## **Project Justification**

Failure of one or more utility segments would have catastrophic impact on operation of up to seventeen major buildings. The 2011 Comprehensive Campus Master Plan assessed the steam distribution system, which consists of mainly welded steel piping within a buried concrete box conduit system. There are portions of the pipe that are installed in direct buried, insulated piping systems (i.e. Z-crete, Permaduct, and Permapipe). The age of the distribution system varies from 1952 to 2003. The portions of the distribution system that are more than 50 years old have reached and exceeded their expected useful life and are causing maintenance and operational issues. The newer sections of the system are also in poor condition and require replacement. The segment of piping from Pit 2 to Center for the Arts has a segment of 5-foot drop that allows condensate to settle, causing pipe deterioration.

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## A/E Consultant Requirements

☒ A/E Selection Required?

Consultants should have specific expertise and experience in the design and coordination of below grade, multiple building steam distribution system projects as part of a design team. Work includes site surveys, acquiring field data, and verifying as-built conditions to assure accurate development of design and bidding documents, and production of necessary design and bidding documents. Consultants should indicate specific projects from past experience (including size, cost, and completion date) in their letter of interest and when known, include proposed consulting partners and specialty consultants.

The consultant will verify project scope, schedule, and budget estimates, and recommend modifications as required to complete the specified project intent. The consultant will prepare a pre-design document to establish an appropriate project scope, budget, and schedule prior to the university seeking authority to construct from the Board of Regents and State Building Commission.

## Commissioning

☒ Level 1

☐ Level 2

## Project Budget

Construction Cost:	\$
Haz Mats:	\$
Construction Total:	\$
Contingency: 15%	\$
A/E Design Fees: 8%	\$
DFD Mgmt Fees: 4%	\$
Other:	\$
	<b>\$4,496,000</b>

## Funding Source(s)

GFSB - Utilities Repair & Renovation [Z080]	\$2,517,800
PRSB - Utilities Repair & Renovation [T570]	\$1,978,200
Agency/Institution Cash []	\$0
Gifts	\$0
Grants	\$0
Building Trust Funds [BTF]	\$0
Other Funding Source	\$0
	<b>\$4,496,000</b>

## Project Schedule

SBC Approval: 01/2016  
A/E Selection: 06/2015  
Bid Opening: 04/2016  
Construction Start: 07/2016  
Substantial Completion: 11/2016  
Project Close Out: 02/2017

## Project Contact

Contact Name: Doug Stephens  
Email: <stephens@uwplatt.edu>  
Telephone: (608) 342-1147 x

## Project Scope Consideration Checklist

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1. Will the building or area impacted by the project be occupied during construction? If yes, explain how the occupants will be accommodated during construction. ☒ ☐

*All project work will be coordinated through campus physical plant staff to minimize disruptions to daily operations and activities.*

2. Is the project an extension of another authorized project? If so, provide the project #... ☐ ☒

3. Are hazardous materials involved? If yes, what materials are involved and how will they be handled? ☐ ☒

*Hazardous materials abatement is not anticipated on this project.*

4. Will the project impact the utility systems in the building and cause disruptions? If yes, to what extent? ☒ ☐

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*All project work will be coordinated through campus physical plant staff to minimize disruptions to daily operations and activities.*

5. Will the project impact the heating plant, primary electrical system, or utility capacities supplying the building? If yes, to what extent? ☐ ☒
6. Are other projects or work occurring within this project's work area? If yes, provide the project # and/or description of the other work in the project scope. ☐ ☒
7. Have you identified the WEPA designation of the project...Type I, Type II, or Type III? ☒ ☐  
*Type III.*
8. Is the facility listed on a historic register (federal or state), or is the facility listed by the Wisconsin Historical Society as a building of potential historic significance? If yes, describe here. ☐ ☒
9. Are there any other issues affecting the cost or status of this project? ☐ ☒
10. Will the construction work be limited to a particular season or window of opportunity? If yes, explain the limitations and provide proposed solution. ☒ ☐  
*Project work is seasonal. Preferred project work schedule should be limited to late spring, summer, and/or early fall months if possible.*
11. Will the project improve, decrease, or increase the function and costs of facilities operational and maintenance budget and the work load? If yes, to what extent? ☐ ☒
12. Are there known code or health and safety concerns? If yes, identify and indicate if the correction or compliance measure was included in the budget estimate, or indicate plans for correcting the issue(s). ☐ ☒
13. Are there potential energy or water usages reduction grants, rebates, or incentives for which the project may qualify (i.e. Focus on Energy <<http://www.focusonenergy.com>> or the local utility provider)? If yes, describe here. ☐ ☒
14. If this is an energy project, indicate and describe the simple payback on state funding sources in years and the expected energy reduction here. ☐ ☒